142204

SEARCH REQUEST FOR Rev. 3/15/2004 This is an experi	ORM Scient Imental format Ple	tific and Techr	nical Information comments to Jeff H	on Center - Arrison, JEP-4B	EIC2800 68, 272-2511
Date 11007 Seria	1#100	5439	_ Priority Applicat	ion Date	25/02
Your Name Mile		•	Ēxami		<i>'</i> .:
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In what format would you like	your results? Par	per 19 the default.		DISK	EMAIL
if submitting more than one s	search, please p	prioritize in orde	of need.	eed C	refore
The EIC searcher normally with a searcher for an interac	ill contact you b tive search, ple	pefore beginning ase notify one o	a prior art search f the searchers.	n. If you wo	uld like to sit
Where have you searched solutions. Other:		EPO Abs	JPO Abs	IBM	TDB
What relevant art have you Information Disclosure State				ns or	
What types of references we Primary Refs Secondary Refs Faching Refs What is the topic, such as the desired focus of this search? registry numbers, definition topic. Please attach a copy of the search of the sear	e novelty, more Please inclus, structures, sof the abstract	rature rivation, utility, ade the concept trategies, and a and pertinent c	Other or other specifi s, synonyms, ke nything else tha laims.	ywords, ac t helps to d	
5d ulten	, \			7-11	
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Staff Use Only HARRIS GA Searcher Phone: 2251) Searcher Location: STIC-EIC2800, JEP-4B08 Pate Searcher Picked Up: 1-25-05 Pate Completed: 1-26-05 Pate High Prop/Rev Pims: 25 Inline Time: 65	Type of Scarch atructure (#) Bibliographic X Littgation Fulltext Patent Family Other D f C	Dla Usi	lors N. X.		

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Description
Set
        Items
                CR=YAMAGUCHI, 1994?
S1
           1
                CR=YAMAGUCHI T, 1994?
          570
S2
                S1:S2 AND NPN
            2
s3
                S1:S2 AND PNP
S4
                S1:S2 AND VERTICAL??
S5
                S1:S2 AND SIGE
            0
S6
                S1:S2 AND SI(2N)GE
S7
            1
                S1:S2 AND SILICON(2N)GERMANIUM
S8
            0
                S1:S2 AND POLYCRYST?
S9
            6
                S1:S2 AND MONOCRYST?
S10
            1
                S1:S2 AND SINGLE (1W) CRYST?
S11
                S1:S2 AND P()N()P
            2
S12
S13
            0
                S1:S2 AND N()P()N
                S3 AND (S4 OR S12)
S14
            1
                S5 AND S7:S11
S15
            1
                S5 AND EXTRINSIC?
S16
                S5 AND INTRINSIC?
S17
            0
                S5 AND EMITTER
S18
            1
                S4 OR S7 OR S10 OR S14:S18
S19
? show files
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
     34:SciSearch(R) Cited Ref Sci 1990-2005/Jan W3
         (c) 2005 Inst for Sci Info
?
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Description NPN AND PNP
         Items
Set
            685
S1
           3846
                   N()P()N AND P()N()P
S2
                   N()P()N AND PNP
s3
            145
                   NPN AND P()N()P
            271
S4
                   S1:S4 AND CI=SIGE
S1:S4 AND CI=GESI
             69
S5
             12
S6
                   S1:S4 AND SIGE
             73
S7
S8
             91
                   S5:S7
                   S8 AND VERTICAL???????
              8
S9
? show files
       2:INSPEC 1969-2005/Jan W3
(c) 2005 Institution of Electrical Engineers
File
```

1

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FILE 'INPADOC, WPIX, JAPIO, HCAPLUS' ENTERED AT 15:30:17 ON 26 JAN 2005
              3 S US2004099895/PN
L1
               SEL PLU=ON L1 1- IC PN :
                                                 9 TERMS
1.2
         134230 S L2
L3
              3 S L1 AND L3
Ĺ4
     FILE 'REGISTRY' ENTERED AT 15:31:38 ON 26 JAN 2005
              1 S 12790-21-5
L5
                D FIDE
     FILE 'HCAPLUS' ENTERED AT 16:18:38 ON 26 JAN 2005
              0 S US4719185/PN
L6
              0 S US4997776/PN
L7
L8
              1 S US20030080394/PN
                D ALL
     FILE 'WPIX' ENTERED AT 16:19:29 ON 26 JAN 2005
L9
              1 S US20030080394/PN
              1 S US4997776/PN
L10
L11
              1 S US4719185/PN
                  (L9 OR L10 OR L11)
L12
              3 S
     FILE 'WPIX, HCAPLUS' ENTERED AT 16:25:48 ON 26 JAN 2005
              4 S (L9 OR L10 OR L11)
L13
                                               7 TERMS
                SEL PLU=ON L13 1- PN :
L14
     FILE 'DPCI' ENTERED AT 16:27:58 ON 26 JAN 2005
             27 S L14/PN.D
L15
                SEL PLU=ON L15 1- PRN :
L16
     FILE 'HCAPLUS' ENTERED AT 16:28:12 ON 26 JAN 2005
L17
             24 S L16
     FILE 'REGISTRY' ENTERED AT 16:28:34 ON 26 JAN 2005
            724 S GE SI/ELF OR GE.SI/MF
L18
              1 S SILICON/CN
L19
            130 S GE/MF
T.20
     FILE 'HCAPLUS' ENTERED AT 16:29:22 ON 26 JAN 2005
          14764 S L18
L21
           1271 S L19 AND L20(L)MOA/RL
L22
           6323 S SIGE
L23
L24
          15805 S L21 OR L23
           7548 S L20(L) (SI OR SILICON OR POLYSI####### OR SIGE)
L25
L26
            474 S L22 AND L25
L27
          16205 S
                   L24 OR L26
L28
             24 S L16
L29
             13 S L28 AND L27
                D ALL HITSTR TOT
     FILE 'STNGUIDE' ENTERED AT 16:32:51 ON 26 JAN 2005
     FILE 'HCAPLUS' ENTERED AT 16:33:32 ON 26 JAN 2005
            973 S ("BIPOLAR TRANSISTORS"/CT OR BIPOLAR OR
L30
                ("HETEROJUNCTION BIPOLAR TRANSISTORS"/CT OR "TRANSISTORS (L)
                BIPOLAR, COMPLEMENTARY"/CT OR "TRANSISTORS (L) BIPOLAR,
                HETEROJUNCTION"/CT))(L)COMPLEMENTARY
            528 S ("BIPOLAR TRANSISTORS"/CT OR BIPOLAR OR
L31
                 ("HETEROJUNCTION BIPOLAR TRANSISTORS"/CT OR "TRANSISTORS (L)
                BIPOLAR, COMPLEMENTARY"/CT OR "TRANSISTORS (L) BIPOLAR,
                HETEROJUNCTION"/CT))(L)BICMOS
               5 S ("BIPOLAR TRANSISTORS"/CT OR BIPOLAR OR
L32
                 ("HETEROJUNCTION BIPOLAR TRANSISTORS"/CT OR "TRANSISTORS (L)
                BIPOLAR, COMPLEMENTARY"/CT OR "TRANSISTORS (L) BIPOLAR,
                HETEROJUNCTION"/CT))(L)BIC
L33
            749 S COMPLEMENTARY (3A) BIPOLAR
            934 S BICMOS OR BI COMPLEMENTARY
L34
            4866 S NPN OR N P N
L35
           1841 S P N P
L36
           5664 S L36 OR PNP
1224 S L35 AND L37
L37
L38
            258 S ((L30 OR L31 OR L32 OR L33 OR L34) OR BIC
L39
                MOS OR BIPOLAR TRANSISTORS) AND L38
          22414 S L22 OR L25 OR L21 OR L23
14 S L39 AND L40
T.40
L41
```

```
12 S L41 NOT L29
L42
          24363 S L18 OR L22 OR L25 OR SILICON GERMANIUM
L43
             23 S L35 AND L37 AND L43
2 S L44 AND (POLYCRYST####### OR NON MONOCRYST#
L44
L45
                ##### OR NONMONOCRYST#######)
               3 S L44 AND (POLYCRYST###### OR MONOCRYST#####
L46
                ## OR MONOCRYST#######)
               2 S L44 AND POLYSI######
L47
               5 S (L45 OR L46 OR L47)
L48
                D ALL HITSTR TOT
               6 S L43 AND VERTICAL### AND L38
L49
             246 S (L30 OR L31 OR L32 OR L33 OR L34) AND (L35
L50
                OR L36 OR L37 OR L38)
              19 S L50 AND L40
L51
               2 S L51 AND ?CRYST? (3A) (SILICON OR SIGE OR SI)
L52
               2 S L51 AND POLYSI########
L53
           46763 S (L18 OR L19) (L) (CRYST######### OR
L54
                MONOCRYST####### OR POLYCRYST#######)
            5437 S (L18 OR L19) (L) POLYSI########
L55
           50408 S (L54 OR L55)
L56
             21 S L56 AND VERTICAL### AND (L35 OR L36 OR L37 OR L38)
6 S L57 AND (COMPLEMENTARY OR CMOS##### OR
L57
L58
                BICMOS OR (L30 OR L31 OR L32 OR L33 OR L34))
              28 S L49 OR (L52 OR L53) OR L57
L59
              21 S L59 NOT (L48 OR L42 OR L29)
2 S L60 AND EXTRINSIC#####
L60
L61
              2 S L60 AND INTRINSIC#####
L62
              15 S L60 AND EMIT######
1 S L60 AND SAME(3A) (LEVEL OR LAYER)
L63
L64
               3 S (L61 OR L62) OR L64
L65
               3 S (L61 OR L62) OR L64 OR L65
L66
                D ALL HITSTR TOT
L67
               1 S (L18 OR L20) AND L60
               1 S L67 NOT L66
L68
                D ALL HITSTR
               1 S (SIGE OR SI GE OR SILICON GERMANIUM) AND L60
L69
               0 S L69 NOT L68
L70
          200222 S POLYCRYST###### OR POLYSI#######
L71
            1712 S L71 AND MONOCRYST#######
L72
               0 S L17 AND L72
L73
               0 S L38 AND L73
L74
               4 S (L30 OR L31 OR L32 OR L33 OR L34) AND L72
L75
1.76
               4 S (L18 OR L19 OR L20) AND L75
      FILE 'REGISTRY' ENTERED AT 17:15:00 ON 26 JAN 2005
             448 S C.GE.SI/MF OR C GE SI/ELF
L77
              62 S C/MF
L78
      FILE 'HCAPLUS' ENTERED AT 17:16:20 ON 26 JAN 2005
             930 S L77 OR (L78(L)MOA/RL AND L18)
L79
L80
              18 S (L30 OR L31 OR L32 OR L33 OR L34) AND L79
               2 S L38 AND L79
L81
              15 S (L35 OR L36 OR L37 OR L38) AND L79
L82
               1 S L80 AND L82
L83
               1 S (L80 OR L81 OR L82 OR L83) AND INTRINSIC###
                 ####
               0 S (L80 OR L81 OR L82 OR L83) AND EXTRINSIC###
L85
                 ###
              11 S (L80 OR L81 OR L82 OR L83) AND EMITTER 20 S (L81 OR L82 OR L83 OR L84 OR L85 OR L86)
L86
L87
                 SEL PLU=ON L87 1- PRN :
                                                 14 TERMS
L88
      FILE 'WPIX, JAPIO' ENTERED AT 17:18:26 ON 26 JAN 2005
              16 S L88
L89
               3 S L89 AND INTRINSIC########
 1.90
              16 S L88
3 S L91 AND EXTRINSIC######
 L91
 L92
              3 S L90 OR L92
L93
```

26jan05 18:02:47 User259284 Session D3036.2

File 2:INSPEC 1969-2005/Jan W3 (c) 2005 Institution of Electrical Engineers

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Set
       Items
               Description
               CI=(SI SS(S)GE SS(S)C SS)(S)NE=2
         247
S1
               CI=(SI SS(S)GE SS(S)C SS)(S)NE=3
S2
         667
               CI=(SI SS(S)GE SS(S)C DOP)(S)NE=3
S3
         148
               CI=(SI SS(S)GE SS(S)C DOP)(S)NE=2
S4
         155
               CI=(SI BIN(S)GE BIN(S)C DOP)(S)NE=2
S5
         151
               CI=(SI BIN(S)GE BIN(S)C DOP)(S)NE=3
S6
         133
               CI=(SI BIN(S)GE BIN(S)C SS)(S)NE=3
S7
         149
               CI=(SI BIN(S)GE BIN(S)C SS)(S)NE=2
         167
S8
               S1:S8
S9
         696
        8412
              CI=SIGE
S10
        8889
              S9:S10
S11
              CI=(SI EL(S)GE DOP)(S)NE=1
         690
S12
S13
         512
              CI=(SI EL(S)GE DOP)(S)NE=2
        9509
               S9:S13
S14
               S14 AND VERTICAL???
S15
         247
              S14 AND VERTICAL???(4N)TRANSISTORS
S16
          12
          92 S14 AND (PNP OR P()N()P)
S17
              S14 AND (NPN OR N()P()N)
S18
         321
               16AND17AND18
          1
S19
          76
               17AND18
S20
               S14 AND MONOCRYST?
S21
          41
S22
         257
               S14 AND SINGLE()CRYST?
               S14 AND SINGLE (1W) CRYST???????????
S23
         259
               S14 AND MONO(1W) CRYST???????????
S24
          2
              S21:S24
         296
S25
              S16 OR S18
S26
         331
              S26 AND S21:S24
S27
S28
              S26 AND POLYCRYST?
          11 S26 AND POLYSI?
S29
              S16 AND (COMPLEMENTARY OR BIC OR BICMOS)
S30
              16AND17
S31
           2 16AND18
S32
          21 S19 OR S24 OR S27:S32
S33
           3 S33 AND VERTICAL?
S34
          13 S33 AND EMITTER??
S35
           1
               S33 AND INTRINSIC?
S36
               S33 AND EXTRINSIC?
S37
           4
          11
               S33 AND LAYER???
S38
S39
           2
               S33 AND LEVEL???
               S19 OR S24 OR S27:S39
S40
           21
           3
               S40 AND VERTICAL????
S41
               20AND40
S42
           12
               S19 OR S24 OR S27:S28 OR S31 OR S32 OR S34 OR S36:S37 OR S-
           20
S43
            39 OR S41:S42
           2
               $43/2003-2005
$44
           18 S43 NOT S44
S45
           0 S43 AND (NPN(7N)PNP)
S46
           9 S43 AND (N()P()N(7W)P()N()P)
S47
           8 S47 NOT S44
S48
           9 S43 AND (N(W)P(W)N(7W)P(W)N(W)P)
S49
          12 S43 AND (P(W)N(W)P(7W)N(W)P(W)N)
S50
          12 S49:S50
S51
               S43 AND (NPN AND PNP)
S52
           2
               S51:S52
S53
           14
```